



# Wood and moisture changes

## How to prevent Moisture-related Problems

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### **WOOD AND MOISTURE CHANGES**

At Vermissen we use a lot of recycled wood because of its natural and characteristic appearance. However, wood can swell or shrink due to changes in temperature and humidity. Below you will find information how to minimize problems due to moisture changes.

It's important that you pass this information on to your customer. In this way you can prevent moisture-related problems.

### **Hygroscopic material**

Wood is a hygroscopic material. This means it naturally absorbs and releases water (moisture) to balance its internal moisture content with the surrounding environment.

Because wood retains its hygroscopic nature after it's put into use, it's subjected to fluctuating humidity. Shrinkage and swelling may occur in wood when there are changes in humidity and temperature. This may eventually result in cracks, gaps, and weak joints. This natural characteristic is inseparably linked to a (solid) wooden product and is not to be considered a defect.

### **Normal behaviour of wood**

Vermissen takes all possible precautionary measures to prevent shrinkage and expansion. A large part of the effect of moisture absorption is intercepted within the construction of a piece of furniture. In addition, the moisture content of the piece of furniture is closely monitored until the moment of delivery.

Before the wooden tables or other wooden furniture leaves the factory or workshop, the moisture percentage is 10 to 14 percent. Once in the showroom or at the customer's place, the relative humidity of the environment should be between 50 and 60 percent. If these values are taken into account, the shrinking and swelling will be insignificant and the wood will 'show' normal behaviour.

### **Shrinkage and cracking**

The wood we use has been kiln-dried. Yet it can shrink, crack or split due to uneven dehydration. Experience shows that the air humidity is often too low in rooms with floor and / or air heating. The same applies to new buildings because of the better insulation.

To prevent problems it's important to inform your customers about the correct humidity (50 to 60 percent). The air humidity can be measured with a simple hygrometer / barometer. If the moisture percentage is too low, we advise you to install a humidifier (for sale from 150 €). The old-fashioned method of hanging trays on the radiators works fine too. Provided it's topped up with water in time.



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### **Swelling and warping**

Because wood has the natural feature to absorb moisture, it can expand or warp. Even though it's warm. Especially in the summer the humidity is often higher because the central heating is off. Ventilating a room regularly can help. Furthermore wooden furniture should be placed a few centimetres from a wall. In this way the residual moisture in the wall has no influence.

The air humidity can be measured with a simple hygrometer / barometer. The best relative humidity is 50 to 60 percent.

### **General tip**

In addition to the right humidity, it's important that wooden furniture gets the chance to adapt slowly to the changing ambient temperature. Therefore, leave doors and drawers open for the first few days after installation. This prevents them from shrinking or swelling on one side.

### **Questions?**

If you have any questions please contact us. We will happily answer them. Enjoy your wooden furniture.